176063

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: March 27, 2003

SUBJECT: Casterton Road Mercury Spill, Akron, Summit County, OH

FROM: Mark Durno, OSC, U.S. EPA, Region 5, ERB, Westlake, OH, MI

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POLREP #1: (Initial and Final)

II. BACKGROUND

Site ID No.:	N/A
Delivery Order Number:	N/A
Response Authority:	CERCLA
NPL Status:	Not on NPL
State Notification:	Referral from OEPA
Latitude/Longitude:	41°05' 57.52" North /81°32' 28.60" West
Start Date:	March 14, 2003

III. SITE INFORMATION

A. Incident Category

Emergency Response – Elemental Mercury Spill

B. Site Description

1. Site Location

The incident occurred in a private residence located at 137 Casterton Road in Akron, Summit County, Ohio. The residence is located in a residential area and consists of three floors and an unfinished basement. The residents include two children and the husband and wife.

2. Description of Threat

On March 14, 2003, the owner of the residence received a package from eBay via UPS which contained small beads of elemental mercury. The box had been placed on the kitchen counter

where small beads had leaked onto the counter top. The box was also carried to the second floor where it was placed on a large desk. Beads of mercury were also seen on the desk top. The owners contacted the Akron Fire Department who first noticed the presence of beads of mercury in the box. The fire department notified the Ohio Environmental Protection Agency (OEPA) who in turn notified the U.S. Environmental Protection Agency (U.S. EPA). OEPA requested air monitoring assistance from the United States Environmental Protection Agency (U.S. EPA).

The amount of elemental mercury present in the house poses a human health threat to people living in the house. Mercury is a silvery liquid at room temperature and gives off odorless, colorless vapor at all livable temperatures. Mercury vapor is highly toxic when inhaled, especially for sensitive populations such as infants, children, and the elderly. At high levels, mercury exposure can result in damage to the brain and kidneys. There two young children living in the residence. Mercury spills in a residence can be easily tracked to the outside environment.

IV. RESPONSE INFORMATION

A. Situation

1. *Current Situation:*

U.S. EPA mobilized the Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) on March 14, 2003, and initiated air monitoring activities using a Lumex RA-915 (Lumex) mercury vapor analyzer. The residents were advised to utilize a clean-up contractor. START returned to the residence on March 21, 2003 for air monitoring at the request of the U.S. EPA. Results from the March 21, 2003 Lumex air monitoring results documented appropriate recommended reoccupation levels (mercury vapor concentrations less than 1.0 microgram per cubic meter [$\mu g/m^3$] in the breathing zone).

2. Site Activities to Date:

On March 14, 2003, OEPA notified U.S. EPA of the spill and requested technical assistance. START conducted air monitoring with a Lumex to determine the presence of mercury vapor. OEPA On-Scene Coordinator, Reggie Brown met START on-site at 2200. When START arrived, the box was located in the middle of the kitchen floor and was covered with plastic (visqueen). Large beads of mercury were observed adjacent to the box. OSC Brown bagged the box containing the mercury and recommended that the owners utilize a clean-up contractor. He also recommended that the house be vented over the weekend and children not return until acceptable levels were reached.

The mercury vapor concentrations in the breathing zone throughout the first floor of the house ranged from 2.6 to 14.0 $\mu g/m^3$, with the highest concentration measured in the kitchen at 14.0 $\mu g/m^3$. The mercury vapor concentrations in the second floor of the house ranged from 3.0 to 3.5 $\mu g/m^3$. Mercury beads were observed on the surface of a large desk on the second floor. To reduce mercury vapor concentrations immediately, the OEPA placed the box in a plastic bag and recommended that the home be vented.

After START and OEPA left the residence, the owner contacted Chemtron Corportation who performed a clean-up of the residence over the weekend.

On March 21, 2003, START performed additional air monitoring with the Lumex to confirm that mercury vapor concentrations had been reduced and the house was safe for re-occupancy. The house had been heated to 75 degrees Fahrenheit for four hours prior to the arrival of START. Mercury vapor concentrations in the breathing zone of the residence ranged from 0.12 to 0.32 $\mu g/m^3$ with the highest readings measured in the upstairs hallway at 0.32 $\mu g/m^3$. The mercury vapor concentration of the wooden floor at the front entrance ranged from 0.35 to 0.42 $\mu g/m^3$. START informed OEPA and U.S. EPA of the results.

B. Planned Removal Activities

None.

C. Next Steps

None.

D. Key Issues

None.

V. COST INFORMATION

Pending.